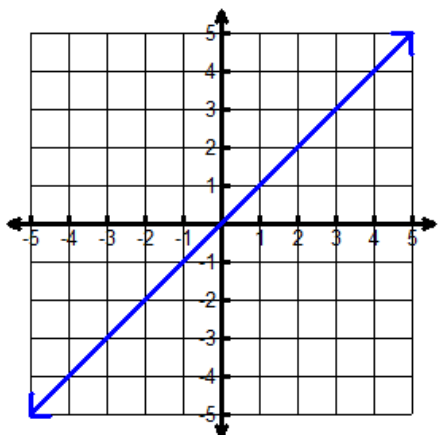


# Parent Functions

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

1.  $f(x) = x$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

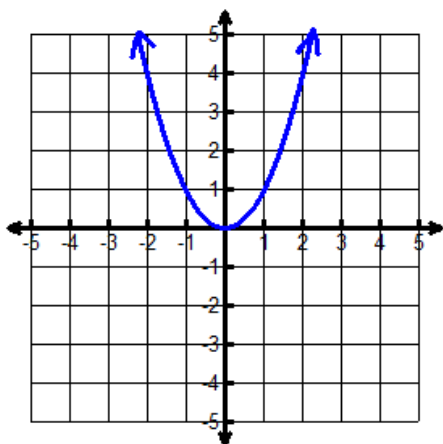
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

2.  $f(x) = x^2$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

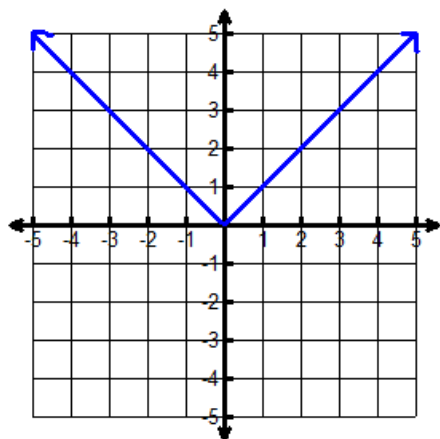
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

3.  $f(x) = |x|$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

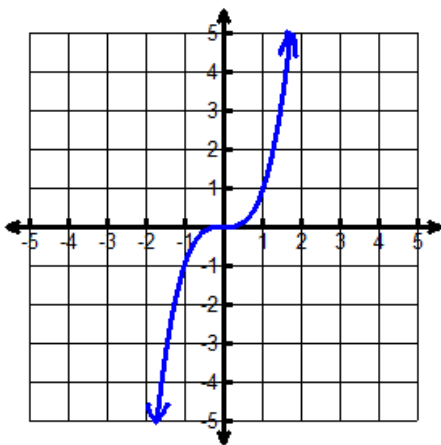
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

4.  $f(x) = x^3$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

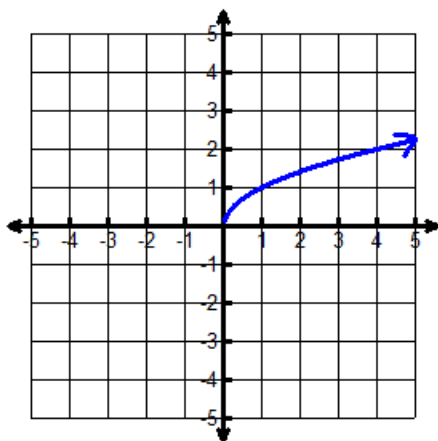
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

5.  $f(x) = \sqrt{x}$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

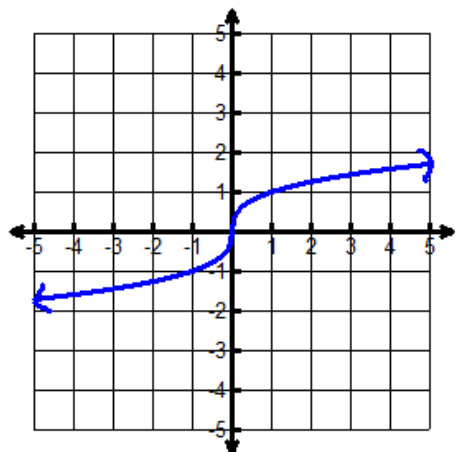
Symmetry:

End Behavior:

$$\lim_{x \rightarrow 0^+} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

6.  $f(x) = \sqrt[3]{x}$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

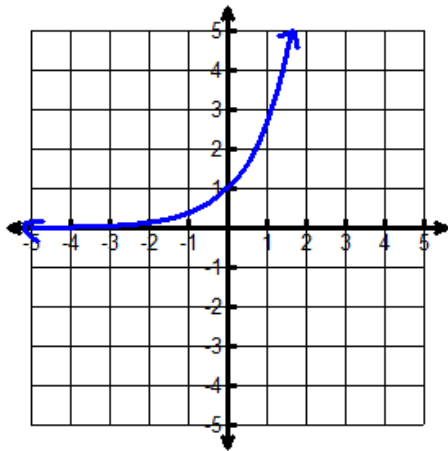
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

7.  $f(x) = a^x$  or  $f(x) = e^x$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

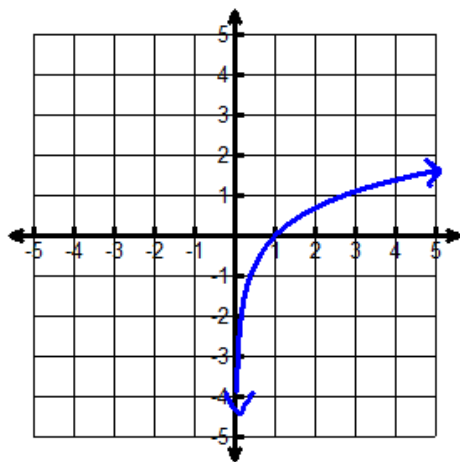
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

8.  $f(x) = \log_b x$  or  $f(x) = \ln x$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

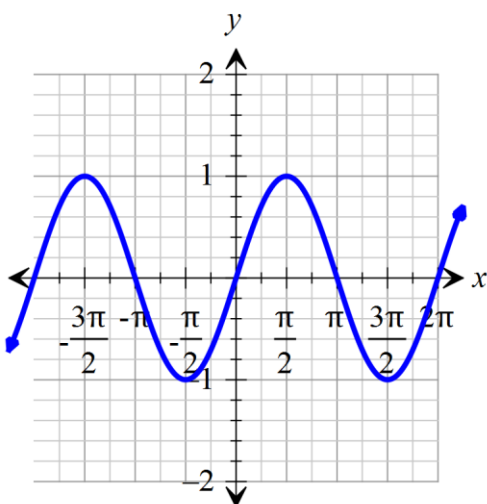
Symmetry:

End Behavior:

$$\lim_{x \rightarrow 0^+} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

9.  $f(x) = \sin x$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

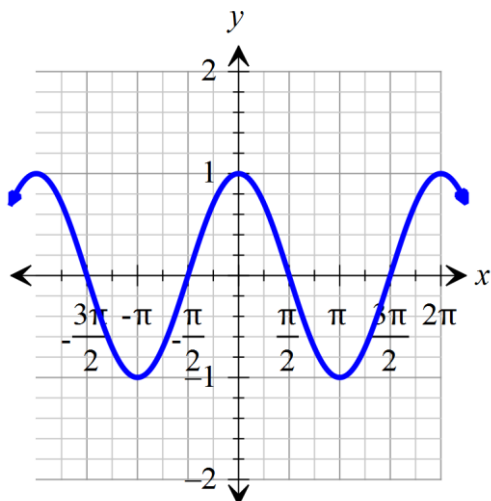
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

10.  $f(x) = \cos x$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

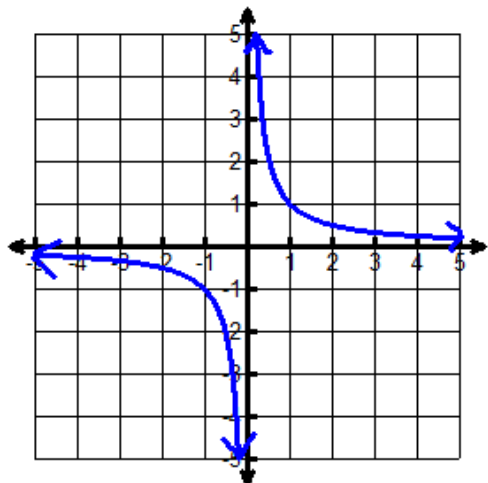
Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

11.  $f(x) = \frac{1}{x}$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

Symmetry:

End Behavior:

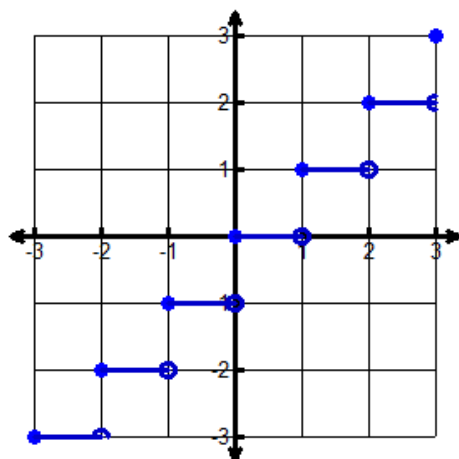
$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow 0^-} f(x) =$$

$$\lim_{x \rightarrow 0^+} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$

12.  $f(x) = \text{int } x$



Domain:

Range:

x-intercept(s):

y-intercept:

Increasing:

Decreasing:

Constant:

Positive:

Negative:

Maximums/Minimums:

Symmetry:

End Behavior:

$$\lim_{x \rightarrow -\infty} f(x) =$$

$$\lim_{x \rightarrow \infty} f(x) =$$